



ALTERNATIVE TO PTO/SB/08a/b (07-05)

|  |   |    |   |                          |                    |
|--|---|----|---|--------------------------|--------------------|
| <b>Substitute for form 1449/PTO</b><br><br><b>INFORMATION DISCLOSURE<br/>STATEMENT BY APPLICANT</b><br><br>(Use as many sheets as necessary) |   |    |   | <b>Complete if Known</b> |                    |
|  |   |    |   | Application Number       | 10/673,273         |
|  |   |    |   | Filing Date              | September 30, 2003 |
|  |   |    |   | First Named Inventor     | Kunihiro IZUNO     |
|  |   |    |   | Art Unit                 | 2826               |
|  |   |    |   | Examiner Name            | F. Erdem           |
| Sheet  | 1 | of | 1 | Attorney Docket Number   | 204552030000       |

| U.S. PATENT DOCUMENTS |                          |   |                                |  |   |
|-----------------------|--------------------------|---|--------------------------------|--|---|
| Examiner<br>Initials* | Cite<br>No. <sup>1</sup> | Document Number<br>Number-Kind Code <sup>2</sup> (if known) | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines, Where<br>Relevant Passages or Relevant<br>Figures Appear |
|                       |                          |   |                                |  |   |

| FOREIGN PATENT DOCUMENTS |                          |   |                                   |  |   |                |
|--------------------------|--------------------------|---|-----------------------------------|--|---|----------------|
| Examiner<br>Initials*    | Cite<br>No. <sup>1</sup> | Foreign Patent Document:<br>Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known) | Publication<br>Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines,<br>Where Relevant Passages<br>or Relevant Figures Appear | T <sup>6</sup> |
| PC                       | 1.                       | JP-10-163525-A  | 06-19-1998                        | SANYO ELECTRIC CO. LTD.                            |   | ✓              |
|                          |                          |   |                                   |  |   |                |
|                          |                          |   |                                   |  |   |                |

\*EXAMINER: Initial if information considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

| NON PATENT LITERATURE DOCUMENTS |                          |   |                |
|---------------------------------|--------------------------|---|----------------|
| Examiner<br>Initials*           | Cite<br>No. <sup>1</sup> | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T <sup>2</sup> |
| ✓                               | 2.                       | Han, J. et al. (1998). "AlGaIn/GaN Quantum Well Ultraviolet Light Emitting Diodes," <i>Applied Physics Letters</i> 73(12):1688-1690.  |                |
| ✓                               | 3.                       | Iwaya, M. et al. (2002). "Suppression of Phase Separation of AlGaIn During Lateral Growth and Fabrication of High-efficiency UV-LED on Optimized AlGaIn," <i>Journal of Crystal Growth</i> 237-239:951-955.   |                |
| ✓                               | 4.                       | Shatalov, M. et al. (2002). "Deep Ultraviolet Light-Emitting Diodes Using Quaternary AlInGaIn Multiple Quantum Wells," <i>IEEE Journal on Selected Topics in Quantum Electronics</i> 8(2):302-309.  |                |

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

|                       |  |                    |          |
|-----------------------|--|--------------------|----------|
| Examiner<br>Signature |  | Date<br>Considered | 10/11/01 |
|-----------------------|--|--------------------|----------|

va-169684



ALTERNATIVE TO PTO/SB/08a/b (07-05)

|  |   |                          |                    |                        |              |
|--|---|--------------------------|--------------------|------------------------|--------------|
| <b>Substitute for form 1449/PTO</b><br><br><b>INFORMATION DISCLOSURE<br/>STATEMENT BY APPLICANT</b><br><br>(Use as many sheets as necessary) |   | <b>Complete if Known</b> |                    |                        |              |
|  |   | Application Number       | 10/673,273         |                        |              |
|  |   | Filing Date              | September 30, 2003 |                        |              |
|  |   | First Named Inventor     | Kunihiro IZUNO     |                        |              |
|  |   | Art Unit                 | 2826               |                        |              |
|  |   | Examiner Name            | F. Erdem           |                        |              |
| Sheet  | 1 | of                       | 1                  | Attorney Docket Number | 204552030000 |

| U.S. PATENT DOCUMENTS |                       |  |                                |  |   |
|-----------------------|-----------------------|--|--------------------------------|--|---|
| Examiner Initials*    | Cite No. <sup>1</sup> | Document Number                          | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines, Where<br>Relevant Passages or Relevant<br>Figures Appear |
|                       |                       | Number-Kind Code <sup>2</sup> (if known) |                                |  |   |
| <i>FE</i>             | 1.                    | 5,376,580                                | 12-27-1994                     | KISH et al.  |   |
| <i>FE</i>             | 2.                    | 5,502,316                                | 03-26-1996                     | KISH et al.  |   |

| FOREIGN PATENT DOCUMENTS |                       |   |                                |  |   |                |
|--------------------------|-----------------------|---|--------------------------------|--|---|----------------|
| Examiner Initials*       | Cite No. <sup>1</sup> | Foreign Patent Document   | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines, Where<br>Relevant Passages or Relevant<br>Figures Appear | T <sup>6</sup> |
|                          |                       | Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known) |                                |  |   |                |
| <i>FE</i>                | 3.                    | JP-6-302857   | 10-28-1994                     | HEWLETT PACKARD CO..                               | Corresponds to U.S. Patent #'s 5,376,580 and 5,502,316, listed above            | ✓              |
| <i>FE</i>                | 4.                    | JP-11-068157  | 03-09-1999                     | SUMITOMO ELECTRIC IND. LTD.                        |   | ✓              |
| <i>FE</i>                | 5.                    | JP-10-270761  | 10-09-1998                     | ROHM CO LTD.                                       |   | ✓              |
| <i>FE</i>                | 6.                    | JP-2001-203385  | 07-27-2001                     | NICHIA CHEM. IND. LTD.                             |   | ✓              |

\*EXAMINER: Initial if information considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

| NON PATENT LITERATURE DOCUMENTS |                       |   |  |  |                |
|---------------------------------|-----------------------|---|--|--|----------------|
| Examiner Initials*              | Cite No. <sup>1</sup> | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. |  |  | T <sup>2</sup> |
| FE                              | 7.                    | Wong, W.S. et al. (2000). "In <sub>x</sub> Ga <sub>1-x</sub> N Light Emitting Diodes on Si Substrates Fabricated by Pd-In Metal Bonding and Laser Lift-Off," <i>Applied Physics Letters</i> 77(18): 2822-2824.  |  |  |                |
| h                               | 8.                    | Kneissl M. et al. (2001). "Continuous-Wave Operation of InGaN Multiple-Quantum-Well Laser Diodes on Copper Substrates Obtained by Laser Liftoff," <i>IEEE Journal on Selected Topics in Quantum Electronics</i> 7(2):188-191.                                   |  |  |                |

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

|                    |                         |                 |          |
|--------------------|-------------------------|-----------------|----------|
| Examiner Signature | <i>John P. M. Brown</i> | Date Considered | 10/11/06 |
|--------------------|-------------------------|-----------------|----------|

va- 163707